Claim Rejections:

Claims 1-18 and 36-63 are all the claims pending in the application. The status of the claims remains the same as in the March 9, 2005 Office Action. In summary:

claims 4-6, 11, 17-18, 37-39, 44-46, 51, and 57-63 are rejected under 35 U.S.C. §102(b) as being anticipated by Shimokawa et al.;

claims 9-10 and 49-50 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shimokawa et al. in view of U.S. Patent 4,501,021 to Weiss;

claims 12-16 and 52-56 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shimokawa et al. in view of Newton's Telecom Dictionary;

claims 7-8 and 47-48 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shimokawa et al. in view of U.S. Patent 4,648,123 to Schrock; and

claims 40-43 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shimokawa et al. in view of U.S. Patent 5,805,586 to Perreault et al. and Vol. 17 of Engineering and Automation by Stewen.

The second set of rejections is used to reject claims 1-3 and 36 and is based on U.S. Patent 5,805,586 to Perreault et al. in view of Vol. 17 of Engineering and Automation by Stewen.

Applicants response to these rejections previously cited in the March 9, 2005 Office Action are the same as provided in the July 8, 2005 Response, which is herein incorporated in its entirety. New to this Office Action, on pages 12-16 of the Office Action, the Examiner responds to Applicants' arguments provided in the July 8, 2005 Response. Applicants note that the grounds of rejection and cited sections of the references provided in the Response to

Arguments section are, in several cases, entirely different than the grounds of rejection provided. As such, Applicants respectfully submit that this Office Action should have been made non-final. Further, in view of the differing grounds of rejection, should the application not be allowed based on the remarks herein, the Examiner is kindly requested to issue a non-final Office Action, specifically incorporating all of the grounds of rejection that the Examiner is using to base the rejections upon.

Applicants response to the Response to Arguments section is as follows using the same outline as laid out on page 12 in the Response to Arguments section of the Office Action.

(a) The Examiner refers to Applicants' argument that the cited art does not disclose or suggest, as recited in claim 4, that the second coupling device blocks the forwarding to the third segment of messages received in the second segment *upon detection of a block of the forwarding of messages by the first coupling device.* The Examiner broadly cites Shimokawa, stating that the background of invention discloses a node that has detected a fault, issuing a command to relevant nodes, and forbidding them to receive or transmit (citing col. 1, lines 45-49). The Examiner also states that Shimokawa discloses detecting an anomaly, and blocking reception or transmission to particular segments (citing col. 7, lines 28-52).

First, as noted above, Applicants respectfully submit that the Examiner has provided a new grounds of rejection. Further, with respect to claim 4, Applicants maintain that the "summary" of features provided in the Response to Arguments section does not disclose or suggest the features of claim 4, and is made using improper hindsight in view of the present specification. As discussed in the present specification, blocking of the forwarding of messages from a faulty segment has the advantage that dynamic faults, e.g., short spikes, as well as

continuous disturbances in a segment of the network do not reduce the transmission capacity of other segments of the network (see page 5, first paragraph of the present specification). In the present invention, as recited, the second coupling device blocks the forwarding to the third segment of messages received in the second segment *upon detection of a block of the forwarding of messages by the first coupling device.*

The Shimokawa network, however, despite what the Examiner concludes is suggested by its disclosure, handles faults (an anomaly as used in the Shimokawa specification) in an entirely different manner. As actually taught by Shimokawa, in its network, each node detects anomalies and takes decisions autonomously, and executes independently measures such as the prohibition of transmission or reception (see col. 4, lines 44-46). Thus, in the Shimokawa network, there is *explicitly* no interrelationship between the nodes and their functions of transmission or reception of messages due to the autonomous and independent nature of the nodes. As such, there is no disclosure that the second coupling device (node) in the Shimokawa network would look to an action taken by the first coupling device (node) in its decision to block messages.

(b) Next, the Examiner discusses Applicants' arguments with respect to the claimed "idle time" feature, most notably argued for the allowance for claim 5.

Claim 5 recites, *inter alia*:

"wherein the blocking device of the first coupling device blocks the forwarding of messages to the second segment upon detection of a fault in the second segment for at least a minimum segmentation time, and the second coupling device includes a monitoring device for monitoring transmission activities on the second segment, which checks compliance with a

maximum idle time on the second segment, and if the maximum idle time is exceeded, blocks the forwarding to the third segment of messages received on the second segment."

In the Response to Arguments, the Examiner again provides a new ground of rejection stating that Shimokawa discloses a control circuit which determines if a response is received within a given time, where if not, prohibition occurs (citing col. 10, lines 10-50). Applicants note that this new grounds of rejection was perhaps provided since the actual grounds of rejection, citing col. 5, lines 39-44, discusses sending a reset frame throughout the network to inform all of the nodes that a faulty node has recovered. This is an entirely different procedure than that claimed.

With respect to the new grounds of rejection, Applicants note that col. 10, lines 10-50 relates to a check frame that is sent to a node, and if a response is not received within a given time, a control circuit responds accordingly. Applicants respectfully submit that this check frame procedure does not suggest any relationship among second and third segments as claimed or minimum segmentation time and maximum idle time. The mere suggestion of measuring a check frame time is not sufficient basis for rejection the specific features recited in claim 5.

(c) Again, a new grounds of rejection is noted. Applicants previously argued that claim 6 recites a feature "wherein forwarding of messages by the first coupling device is blocked only after determination of a predefined number of errors." The new grounds of rejection state that Shimokawa discloses blocking transmission in the event of a single fault (citing col. 5, lines 14-25). First, Applicants again note that the citation to Shimokawa in the grounds of rejection (col. 4, lines 41-46) appears incorrect as this section of Shimokawa refers to the reset frame procedure to announce that a node has recovered.

With respect to the new grounds of rejection, Applicants respectfully submit that Shimokawa does not disclose the aforementioned feature. Rather than using a predefined number of errors to determine when to block forwarding of messages as recited in claim 6, in Shimokawa, when an anomaly (error) is detected, a check frame is sent to a neighboring node on the side in which the anomaly was detected (see col. 4, lines 47-54). Based on this check frame, decisions are made with regards to transmission and reception (blocking) of messages. Further, in the section newly cited in the Response to Arguments, *reception* of messages is prohibited (see col. 5, lines 7-12). Claim 6 recites *forwarding* of messages by the first coupling device.

(d)-(h) The response provided in this section summarizes the grounds of rejection. Applicants response thereto is provided in the July 8, 2005 Response.

(i) Applicants argued that claim 10 further defines the predefined number of characters as 262. Claims 49 and 50 recite similar features.

The grounds of rejection acknowledge that the aforementioned features are not disclosed by Shimokawa. However, the grounds of rejection state that Weiss discloses a maximum frame (character) size for detecting error (citing col. 3, lines 46-64). The Response to Arguments section states that it would have been obvious to one of ordinary skill in the art at the time of invention to have a predefined number set to 262, citing this number as an optimum value.

Applicants respectfully traverse this rejection. Applicants submit that Shimokawa uses a check frame of short word length to *determine* an anomaly (see col. 4, lines 47-54). Thus, Applicants submit that one of ordinary skill in the art would not look to the teachings in Weiss for error detecting abilities, since a specific process using a check frame is defined by

Shimokawa. A predefined number of characters is not related to a check frame. Further, the Examiner has again provided a new grounds of rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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